

Mohave County Miner.

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Operating Three Big Dredges.

A Virginia, Nevada, dispatch says: The Conrey Placer Mining company, which is engaged in placer mining by means of dredges in Alder gulch, at the town of Ruby, near the mouth of the gulch, has made extensive improvements in its plant during the past year.

The company was originally organized as the German Bar Mining company and began operation in Alder gulch in 1897, its plant being located on what was known in the early days as German bar, just below the town of Adobetown, about two and one-half miles below Virginia City. The ground was worked by means of what was known as the Ledgerwood cableway, which consisted of a tower 30 feet square at the bottom and 90 feet high, tapering to a saddle block, about 18 inches square, over which a two-and-one-quarter inch wire cable extended some 400 feet to a stamp-propelled car which ran on a circular track. The digging bucket, with a capacity of a yard and a half of gravel, ran on this cable. It would dig a bucketful of gravel from the bottom of the pit and then was hauled to the hopper in the tower and the contents dumped automatically into the flume. The idea of this cableway was taken from those in use on the Chicago drainage canal, then in course of construction. This method was used three seasons, operating during the summer months only.

In 1899 the German Bar company was reorganized into the Conrey Placer Mining company, so named for the Conrey ranch at the mouth of Alder gulch, which was purchased by the company from Philip Conrey for the sum of \$30,000. The company decided to discard the cableway and use the dredging method of mining, and, accordingly, built what is known as dredge No. 1, which was put in operation in the fall of 1899. This dredge was not built strong enough and was unable to dig the gravel without continual breakage, and after operating it a couple of seasons all the weak parts were replaced with stronger material and it was found to work admirably.

Another boat, known as dredge No. 2, was constructed and put in operation in July, 1902. This boat was built stronger than No. 1 and worked successfully from the start. These dredges were of the open connected endless-chain bucket type, there being a bucket every other link. The buckets on No. 1 had a capacity of six and one-half cubic feet and on No. 2 they held 10 cubic feet each. The gravel was brought up by the buckets from the bottom of the ponds in which the boats were floated, from a depth of from 30 to 37 feet below water level, and dumped into the hopper, from which it was washed by a 10-inch stream of water into a revolving grizzly with holes about four inches square. The larger gravel and boulders came out of the grizzly and fell onto an inclined rock chute placed crosswise of the boat, which guided the stones back into the pond and underneath the boat. The smaller gravel, sand and gold fell through the holes in the grizzly into a sluice box which began underneath the grizzly and ran to the rear end of the boat, and discharged into a flume. Riffles placed in the sluice box and flume caught the gold, which was gathered by means of quicksilver.

While these dredges were successful in saving the gold and moved a large amount of gravel daily, they were operated by steam power, which was very expensive owing to the cost of coal, and the company decided to build another dredge, to be operated by electricity. Accordingly dredge No. 3 was constructed and an electric power line was run to Ruby from the plant of the Madison River Power company, in the Madison canyon, some 25 miles distant. No. 3 was completed and placed in operation in September, 1906. It is 130 feet long, 48 feet wide, and the hull is eight feet deep. The distance from the surface of the water to the tumbler shaft is 33 feet, which distance it elevates the gravel above the water. It digs gravel from a depth of 43 feet below the surface of the water. It is of the open-connected-endless-

chain bucket style and dumps eight buckets of 15 cubic feet each every minute and has a capacity of 125,000 cubic yards of gravel per month.

This dredge proved so successful that it was determined to change the two other dredges throughout and operate them also by electricity. All the old machinery was removed and the boats were virtually rebuilt to conform to the electrical machinery, and were completed and placed in operation the past summer. Dredges Nos. 1 and 2 are what are known as the California style of dredge, or stacker and table type, and the machinery is different in some details from that of No. 3. Instead of using the open-connected endless-chain buckets, the new dredges have a bucket on every link, what is known as the close-connected endless-chain, which dumps 18 buckets, each of seven and one-half cubic feet capacity, every minute. These dredges have a capacity of 100,000 cubic yards of gravel per month each, but they will handle from 15,000 to 20,000 cubic yards more. Dredge No. 1 is 96 feet long and 44 feet wide, with a nine-foot hull, and delivers the gravel from a depth of 30 feet 26 feet above the surface of the water. Dredge No. 3 is 106 feet long and 44 feet wide, with a nine-foot hull, and delivers the gravel from a depth of 34 feet 26 feet above the surface of the water.

Mines in Yuma County Showing Up Well.

Martin Edwards, interested with Charles Sam in the Ironwood claim near Kofa, came in yesterday afternoon with a few ounces of the main lead of their mine taken from the ledge which they have uncovered at a depth of 250 feet, and into which they have penetrated 22 feet. They never drilled through the vein, but have changed the works and are sinking on it. The sample that he has brought in came from a depth of 20 feet on this last strike, and it leaves a long string when burned that would indicate a value of at least 1000 per ton, and may go much higher.

The freight business between the Mohave station and the King of Arizona mines always was large, but of late years it is growing so that the man who held the contract to deliver the goods has been looking for a cheaper means of making the delivery. That means is now found, and as soon as the machines can be placed on the ground Mr. Norton will have three large twenty-horse traction trucks placed on the run. These big machines are guaranteed to haul, over ten per cent grades, a ton to the horse power, and can do much better than that. The fuel used will be gasoline and the saving in feed and worry over the old style of mule team hauls will be very great.

Experts were seen on their way to Kofa country yesterday, who are going to look at the Max Engasser claims, which lie six miles east of the King of Arizona, and which have had very much development work done on them. These properties were located in 1883 and have been worked continuously ever since, but only in the way of development, not as a mine. It is said to show up very fine in gold and copper, and the owner thinks that he has something that will place him beyond the fear of want forever and a day.—Yuma Sun.

Big Strike in the Arizona-Michigan.

A Benson dispatch says: Though the Arizona & Michigan Development Co. struck the second enrichment in its deepest workings over two weeks ago, and has been sinking in it ever since, its great import only began to dawn on the people of Johnson a few days ago when attention was attracted by the rich ore being taken from the incline shaft.

After inspecting the great blocks of ore now being taken out, and examining the ore which was extracted previous to the late strike, it appears that the Arizona & Michigan Development company has penetrated the second enrichment of copper ore.

Ores from workings between this and the surface, while rich enough to be pronounced the highest grade si-

licious camp in Arizona, have more or less a leached appearance, showing that the action of water, percolating slowly through them for centuries, has taken part of the copper in solution to lower depths; while the ore now being taken out is not leached in appearance, but rich and lustrous in heavy copper sulphides, black, yellow and rainbow hued.

Ed. Johnson, an old timer in Johnson, who has watched the different mining operations of the district, said this was an important thing for the whole district. He said other mining men had gophered around and taken ore from near the surface, but feared to go down deeper after more, less they might expend more than they could get back.

The A. M. D. Co. has boldly gone down, after reaching a depth where others had stopped, and now the courageous adventure has been rewarded by very tangible results which will encourage others who are able to do likewise.

The latest report is that the entire shaft is bottomed in ore of the second enrichment, and not only the bottom but the sides also. No foot-wall or hanging-wall is in sight, and as the formation dips about 40 degrees, and the shaft follows the dip, its roof is toward the hanging wall, and this roof is now rich sulphide ore, just like the best of that being taken out, so there is no telling what the extent of this ore body is.

Cananea Smelter Resumes Full Work.

A pleasing and surprising sequel to the driving of the gold spike on the completion of the Cananea-Nogales branch of the Yaqui River road, was the blowing in of the two idle furnaces at the Cananea smelter, which put the entire plant into operation for the first time in about a year. After driving the spike in the railroad track, Gov. Torres proceeded with officers of the mining company and a few invited guests to the smelter, where the governor formally blew in the two furnaces by pressing a button which had been prepared for the occasion. The starting of the two additional furnaces at the smelter was wholly unexpected by the public, as with characteristic secrecy, the officers of the company had not made their intentions known. This will add almost 50 per cent to the output of the smelter and will be of great benefit to Cananea and all the southwest.—South-Western Mines.

Fink Smelter is a Success.

At 11 o'clock yesterday morning, under the direction of Mr. Fink, the inventor, the new process smelter built by Samuel Newhouse at Arthur, half a mile from Garfield, was blown in. Further than saying that the test was highly satisfactory, neither owner nor inventor desired to express himself last night, but that both were quite elated over the matter was evident when both men were seen at the Newhouse residence last evening. "We will not make any statements immediately," stated Mr. Newhouse to the Herald reporter, "except that we are well satisfied with the test. The smelter was blown in at 11 o'clock and in two hours and for all the rest of the day, the desired degree of heat was obtained and kept up with less than two tons of slack coal. This ordinarily would have required the burning of a great number of tons of coal. Within a few days we will be able to give out some interesting information concerning this matter, I believe."—Salt Lake Herald.

Copper Going Into Ships.

The three big battleships recently launched in Great Britain, Bellephophon, Temeraire and Superb, will consume 3,650,000 lbs of American lake and electrolytic copper, and 1,000,000 lbs will be required for each of the three big battleships whose keels are to be laid at once in England. For account of the men-of-war on the stocks of Continental Europe, 19,000,000 lbs. of lake and electrolytic copper will be needed within a year. The mercantile marine contracts under way in European yards will consume 57,000,000 lbs. of copper within a year.

Although work is slack at domestic shipyards, tonnage under contract will call for the consumption of 6,000,000 lbs. of lake, electrolytic and casting copper within a year. The navy yards, ordnance works and the mint are consuming annually about 12,000,000 lbs. of copper. The ship repairing plants on both oceans and along the Great Lakes are working up about 10,000,000 lbs. of copper a year in various forms of bronze and brass.

Tramway Shaft in Operation.

A Butte, Mont., special says that the Butte Coalition company has begun the use of the new Tramway shaft and hoist for mining operations in the Minnie Healey and a portion of the Rarus mine. The Tramway vein will also be mined through the new shaft. The shaft is something more than 1,600 feet deep, and will be sunk deeper, while mining is going on in the 13th, 14th and 15th levels. The 16th level is being opened from the Tramway through Tramway ground and into the Minnie Healey.

With the operation of the new hoist the output of the company, which is now from 1,000 to 1,200 tons of ore per day, will be increased gradually until, a few months hence, at least 2,500 tons will be hoisted daily.

The new surface plant at the Tramway is one of the largest and best in the Butte district and was designed to serve largely for all the operations in the Rarus-Minnie Healey group of mines, including the Tramway and Snohomish mines, in which the Coalition owns controlling interests. The new engine is capable of hoisting the seven-ton skip load from a depth of 3,500 feet. It is equipped with drums 12 feet in diameter, and one and a half inch steel round ropes are used. The plant includes a large boiler house with equipment, carpenter shop, hoisting engine building, miners' change house, sanitarium constructed, with hot and cold water and shower baths, capable of accommodating 1,500 miners; machine shops, warehouses, office buildings, etc.; steel head frame 92 feet high to the sheaves, etc. In addition to the large hoisting engine, another engine of good size is in use for sinking and lowering supplies and handling the men through the third compartment of the shaft.

Some wonderful results have been brought about by the development of the 13th, 14th and 15th levels, and will be duplicated on the 16th. They have practically made a new mine out of the Minnie Healey. The 13th level is 60 feet below the lowest of the old workings on the 1,110 foot level, and that 60 feet of ground will be left there as a barrier against the fire and gas prevailing on the upper levels.

Much ore has been opened on the 13th level, and fully 50 per cent of it is first-class. The vein is said to be more than 35 feet wide there, but more than a dozen other veins of varying sizes have been opened on that level, the smallest being about four feet wide and full of ore assaying 20 per cent copper. Similar conditions prevail on the 14th level, where the veins have been opened extensively by crosscuts and drifts. On the 1,500 foot level the largest vein opened is more than 50 feet wide and 35 feet of it is of a fine grade of ore. Another vein is 25 feet wide and carries considerable glance. On the 16th level the first good ore has been found in the Tramway vein, there being more than 30 feet of good commercial ore in it.

Big Mining Sale.

Col. J. C. Denton, of Bouse, has concluded the sale of the Manipulator group of copper claims, embracing the Little Butte, to Louis Campton, publisher of the Financier of New York, and J. E. Myer, a Los Angeles broker. Experts examined the property and the purchasers bought only after satisfying themselves of its value. The price paid is not divulged, but it is not to exceed 100,000. This is the third big sale Col. Denton has put through within the last sixty days in this camp, and as it assures big capital for development, all are facing the new year with high hopes.—Yuma Sun.

Our Large Territory.

A White River correspondent of a southern Arizona paper says that: Hundreds of people living in Arizona do not realize the extent or size of the territory. A few comparisons will suffice many of the old settlers. The eastern border is 390 miles long, and the north boundary 285 miles. The longest line running east and west across the territory just north of Pima county and terminating at Yuma on the Colorado river.

The territory contains 113,020 square miles. Arizona would make ninety-four Rhode Islands, or fifty six Delawares, or nine Marylands, or three Indias, or two Illinois. It is larger than England, Wales and Ireland combined or greater than the combined area of Denmark, Greece, Portugal and Belgium, with enough land left to make two and one-half Rhode Islands.

The Shannon Copper company, which corporation recently secured the Weaver mining claim, situated in the Greenlee district above Clifton, has established quite a camp and is now working a good force of men on the property. Several years ago Mr. Weaver struck some good ore on the property, but the grade of the ore was not high enough to work on a small scale. While there is no big showing yet, the Shannon company is almost certain to develop a good property. Several mining engineers have reported on the property and the company is doing its work upon first-class advice. The entering of the Shannon into that section of the district means a great deal for individuals owning property in that neighborhood and if development work on the Weaver claims proves successful, there will be considerable activity in the upper country.—Copper Era.

A fine specimen of sulphide ore, assaying about 20 per cent copper, and weighing about one hundred pounds, was brought in last night by Frank Ewing from Lyons canyon, about fifteen miles southwest of Globe. The ore is from a recent strike on the Copper Sulphide group, owned by Lyman C. Woods and Ike Elliott, the strike having been made in a tunnel following the ledge, at a depth of about 35 feet. It is one of the finest specimens of sulphide ore brought to town for several months, being very similar to the sulphide from the Gibson mine, and shows considerable peacock copper. The ledge is a strong one and at the surface shows a width of fully twelve feet. There are five claims in the group, which is situated about one mile and a half southeast of the Independence mine, and two miles southeast of the Cole mine.—Globe Silver Belt.

F. S. Hoyt, of F. S. Hoyt & Co., now operating a cyanide plant on the tailings of the old Silver King mine, was a visitor at the Blade Tribune sanctum Wednesday. They have been successfully operating the plant for several months past and are now preparing to increase the capacity of the plant from 30 to 60 tons at a charge. Mr. Hoyt stated that he is making an extraction of 98 and 2-10 per cent of the silver values of these old tailings, and is making a good profit. The tailings average about 108 per ton and there are nine thousand tons to be treated yet. Different persons have tried to successfully treat these tailings during the past, by various leaching processes, but all failed till Mr. Hoyt took hold of the matter. He is a master of the cyanide process.—Flourance Blade.

The Rev. I. R. Kicks Almanac.

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